

THE CLAIMS:

1. (Currently Amended) A method for production of an α -glucan from a cellobiose, comprising:

reacting a solution containing a cellobiose, a primer, a source of phosphoric acid, cellobiose phosphorylase, and α -1,4-glucan phosphorylase to produce an α -glucan; wherein the step of reacting the solution to produce the α -glucan comprises removing glucose produced as a byproduct from said solution simultaneously with production of said α -glucan, and wherein said solution further contains glucose oxidase and mutarotase.

Claims 2-7. (Cancelled)

8. (Currently Amended) The method according to claim ~~[[7]]~~ 1, wherein said solution further contains catalase or peroxidase.

9. (Original) The method according to claim 1, wherein said source of phosphoric acid is inorganic phosphoric acid, glucose-1-phosphate, or a mixture of inorganic phosphoric acid and glucose-1-phosphate.

10. (Original) The method according to claim 1, wherein the concentration of said source of phosphoric acid is 1mM to 50mM.

11. (Original) The method according to claim 1, wherein said α -glucan is amylose.